



FINAL MEETING SUMMARY
HANFORD ADVISORY BOARD
TANK WASTE COMMITTEE
November 7, 2018
Richland, WA

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<p><i>This is only a summary of the issues and actions discussed at this meeting. It may not represent the fullness of represented ideas or opinions, and it should not be used as a substitute for actual public involvement or public comment on any particular topic unless specifically identified as such.</i></p>

Tank Waste Committee Opening

Bob Suyama, Benton County and Chair of the Tank Waste Committee (TWC) welcomed committee members and introductions were made. Committee members approved the October Tank Waste/Health, Safety and Environmental (HESP) meeting summary.

Announcements

Lindsay Strasser, Hanford Advisory Board (HAB/Board) Facilitator reminded members, Agency liaisons and contractors to sign in prior to leaving the meeting.

Interpretation of Non-High-Level Waste (non-HLW)

Bob Suyama introduced Mark Senderling, Deputy Assistant Secretary for Waste and Materials Management Office of Environmental Management (EM). In addition to being the Deputy Assistant Secretary, Mark is Senior Manager overseeing the offices of; National Transuranic (TRU) Program, Waste Disposal, Nuclear Materials, Packaging, and Transportation. Mark is also responsible for EM's High-Level Radioactive Waste Interpretation effort. Mark provided TWC members with a presentation on the Federal Register Notice on Interpretation of the Definition of High-Level Radioactive Waste. Key points from Mark's presentation¹² included:

- On October 10, 2018, DOE issued a Federal Register Notice (FRN) soliciting public comment on the interpretation of the definition of High-Level Waste (HLW).
- Department of Energy (DOE) is working on the methodology of the meaning for what is or is not HLW.
- A decision on waste classification has not been made at this time. Mark encouraged committee members to understand the current FRN does not include implementation for any particular site, tank or waste stream.
- The definition of HLW from the Nuclear Waste Policy Act (NWPA) or Atomic Energy Act (AEA), does not clearly define "highly radioactive," "fusion product," and "sufficient concentrations." DOE interprets that to mean reprocessing should be evaluated and classified on its radiological characteristics and its ability to meet requirements of a disposal facility.
- Based on the four classifications of low-level radioactive waste as defined by the Nuclear Regulatory Commission (NRC) regulations (10 CFR Part 61.55), and performance assessments for deep geologic repositories, DOE will use its expertise to interpret the definition of HLW.
- With the understanding that not all reprocessed waste is HLW, Congress allows DOE to determine when those standards are met. It is appropriate for DOE to use its expertise to interpret the definition of HLW.

¹ [Federal Register Notice on Interpretation of the Definition of High-Level Radioactive Waste](#)

² [Federal Register / Vol. 83, No. 196 / Wednesday, October 10, 2018, / Notices](#)

- There are no requirements in the statutory text of the AEA or the NWPA requiring removal of radionuclides prior to determining if the waste is HLW.
- DOE is in search of better, safer and more efficient ways to safely dispose of the radioactive material.

Agency Perspective:

Suzanne Dahl, Washington State Department of Ecology (Ecology), provided Ecology's perspective of the Interpretation of Non-High-Level Waste (non-HLW).

Suzanne explained through the Nuclear Waste Policy Act (NWPA), HLW can be disposed of in a near-surface environment. NWPA allows for certain fusion products to be removed when the performance and risk assessment are met through Waste Incidental to Reprocessing (WIR). She expressed Ecology's concern with a new definition of HLW and the impact to Hanford. Additionally, the Resource Conservation and Recovery Act (RCRA) requires waste to be treated before disposal. RCRA requires metals be removed from HLW to meet Land Disposal Restrictions (LDR). Currently, treatment for metal removal is High-Level Vitrification (HL-VIT). Suzanne shared the NRC, DOE, with Ecology and the Tribes spent significant time and money to determine where the waste should go. In addition, she expressed Ecology's concern for regulating the process under the new definition. Ecology has the Integrated Disposal Facility Landfill (IDF) and RCRA permit at Hanford. DOE is the permittee. In the end, DOE is the regulator on the radionuclides and allowing the regulator to redefine the definition is a concern.

Ecology will give a public comment at a later date.

Committee Member Questions (Q), Responses (R), and Comments (C):

Note: This section reflects individual questions, comments, and agency responses.

R: (DOE-HQ) "DOE continually looks for more innovative ways to perform cleanup safely and more efficiently. As stated in the FRN, "...nothing in the statutory text of the AEA or the NWPA requires that radionuclides be removed to the maximum extent technically and economically practical prior to determining whether waste is HLW. DOE has determined that the removal of radionuclides from waste that already meets existing legal and technical requirements for safe transportation and disposal is unnecessary and inefficient, and does not benefit human health or the environment. To the contrary, it potentially presents a greater risk to human health and the environment because it prolongs the temporary storage of waste...." If waste meets the requirements of a Low-Level Waste (LLW) facility, what is the requirement for removal of the radionuclides from the waste? Why generate a second stream of waste that must be managed, disposed of, and paid for? DOE is trying to align the waste characteristics with the disposition path, ensuring safety without generating extra work that also increases risk."

R: (Ecology) "DOE worked with the NRC to decide how a WIR is performed and allows for waste to be left. The question asked was, how can some of the waste be left in a near-surface land-fill at Hanford? It was decided that removal of sludges, Cesium, and Strontium, the waste was safe to leave in a near-surface environment. The process executed at Hanford is doing what the FRN proposes and has been for several decades."

C: "How will this impact Hanford if we don't understand what the implementation implications are? If the current HLW is declared to be LLW, the cumulative waste load that will be left at Hanford for decades is a concern."

R: (DOE-HQ) “We want to get the policy right. Deviations will not be made to existing regulatory frameworks.”

Q: “Who decides what is a good performance assessment? Performance assessments vary, and may not be reliable in practice. How do we make the performance assessment wording more comfortable for the public? What are your thoughts?”

R: (DOE-HQ) “The function of the performance assessment is to provide evidence that the performance objectives are met. The requirement meets the performance objectives, as proven by the performance assessment.”

Q: “In this scenario, the waste control specialist would be the regulator. Would they be writing the performance assessment to determine whether or not the waste coming from other sites meets the performance objectives?”

R: (DOE-HQ) “These are implementation questions. Hypothetically, it depends on the classification of the waste. If it is class A, B or C, there is no performance assessment in accordance with the first criterion as proposed in the FRN. For waste higher than class C, a performance assessment would be conducted at that time. For a Waste Control Specialists hypothetical example, the Texas Commission on Environmental Quality would be the regulator, and approve the performance assessment that WCS prepares.”

Q: “By who? By the regulator of the site that would be accepting the waste?”

R: (DOE-HQ) “The regulator. The regulator is the receiver and reviewer of the performance assessment.”

Q: “To be clear, when you say the applicable regulator, that’s the U.S. Department of Energy itself correct?”

R: (DOE-HQ) “The regulator depends on the site, waste stream and disposition path, which is implementation. It is hypothetical and I don’t want to talk about implementation. Right now, we are trying to get the policy right.”

C: “When making an environmental decision, any federal action requires an analysis to consider what the effects could be. Implementation is very important in those ways.”

Q: “What is your perspective on 3116(a) (National Defense Authorization Act for Fiscal Year 2005)?”

R: (DOE-HQ) “You are asking why we are not including the same requirement and the answer is in the FRN. “...nothing in the statutory text of the AEA or the NWPA requires that radionuclides be removed to the maximum extent technically and economically practical prior to determining whether waste is HLW. DOE has determined that the removal of radionuclides from waste that already meets existing legal and technical requirements for safe transportation and disposal is unnecessary and inefficient, and does not benefit human health or the environment. To the contrary, it potentially presents a greater risk to human health and the environment because it prolongs the temporary storage of waste....” If you prove the disposition path is safe through a performance assessment or through meeting the NRC regulations (10 CFR 61.55), why would you go the extra step of removing radionuclides and create a second waste

stream? You are doubling the potential to create exposure. DOE wants to decrease exposures, not increase them.”

C: “I would have an easier time if I understood what DOE needed from this new interpretation that they cannot get from the existing regulations.”

C: “It is challenging to understand how leaving waste in soil would reduce risk. There is a whole cleanup agreement based on the interpretation of this material being treated as HLW.”

R: (DOE-HQ) “If you determine something to be safe and you require additional handling, you are increasing exposures.”

C: “Determining something to be safe is done through a performance assessment. Our experience with performance assessments has not been encouraging. Potential risk drivers have been left out. A similar approach to this can create a massive problem that reaches the Columbia River. That is our concern.”

C: “The test is in how this is implemented. Trust needs to be there. If this will be implemented as you explained it, then we join in on treating HLW for what it is.”

Q: “What is the next step after December 10, 2018? How will this be implemented? Is there a change to 435.1?”

R: (DOE-HQ) “We will consider all public comments. Based upon the scope, and the breadth of those comments, we will determine the path forward. It depends on what is received from the public.”

C: “It is appropriate for a policy to go through an evaluation of the impacts if a policy is implemented. For Hanford, it is more than a sealed source. It is 177 tanks and 41 miles of trenches. It is worth walking through the current framework that Ecology went through.”

Q: “Has DOE gone back to Congress about this? Congress seems to be a more appropriate body to handle this process than the DOE?”

R: (DOE-HQ) “There have been no interactions in Congress on changing this, but we have briefed committees on the contents of the FRN. DOE has the authority to make the change. It is the position of DOE that additional clarification from Congress is not required.”

Review Draft Advice: Interpretation of Non-High-Level Waste

Bob Suyama provided committee members an introduction³ on the review of the draft advice on the Interpretation of Non-High-Level Waste. Bob encouraged committee members to discuss and ask questions about the change of definition to HLW. Bob asked if members would like to comment on the FRN in the form of advice at the December Board meeting. With consensus, members determined this was a very important topic requiring advice to move forward to the December Board meeting.

³ [Draft Advice for Comment: DOE Interpretation of non-High-Level Waste \(non-HLW\)](#)

Bob opened the discussion for members to provide general thoughts and feedback regarding the draft advice.

Committee Member Questions (Q), Responses (R), and Comments (C):

Note: This section reflects individual questions, comments, and agency responses.

C: “How will this apply to Hanford? That is the most relevant question in regards to what the policy can do.”

C: “There needs to be an evaluation as to how this will affect Hanford.”

C: “We need to have some enforcement language to ensure oversight from DOE Headquarters (DOE-HQ) to the local DOE offices.”

C: “To use this interpretation, DOE would have to update DOE M 435.1-1 *Radioactive Waste Management Manual*.”

C: “Performance assessments do not provide an adequate process. That is unsure footing for restructuring the whole cleanup for Hanford.”

Q: “I do have questions about the interactions between regulators from the site where the waste originates and the regulators where the waste is being considered for acceptance?”

C: (Ecology): “The initial wording in the advice states, The Hanford Advisory Board strongly supports the recent DOE interpretation. Based on what I hear, I doubt the HAB knows enough on whether they should support it or not.”

Q: “What is the cost of this process? How will this impact the Vit Plant and the Tri-Party Agreement (TPA) with what we already have in place?”

C: (Ecology) “It was implied that states will regulate this process. Let’s keep this about Hanford. Washington has waste acceptance criteria written into its permits and performance assessments. I-297 as interpreted by the judge, states DOE is the clear regulator of the radionuclides.”

C: (DDFO) “There are two topics. What is the waste for disposal? What is the treatment of it? Right now, we are working for the treatment of the waste.”

Q: “Can DOE use that interpretation to close a tank without performing any waste retrieval beforehand? If DOE can operate through the landfill closure, satisfy the RCRA requirement, and DOE is its own regulator for the radionuclides, that could be a pathway for DOE?”

R: (Ecology) “This is Ecology’s concern as well. RCRA does not allow for waste to be left in tanks. The Tank Closure Waste Management risk assessment requires 99% of the waste must be removed. To prevent a significant risk to future human health and the environment.”

C: “DOE cannot have sole discretion at determining what is HLW.”

C: “The Board should advise DOE to extend the comment period from 60 days to 120 days for something of this magnitude. The Board should advise DOE to provide additional analysis on how the proposed interpretation on HLW would impact Hanford cleanup.”

C: “The practicality case needs to be made every time. Waste separation needs to happen as much as possible. DOE may not remove key radionuclide every time, but the case needs to be made.”

Q: (DDFO) “Would the Board consider TPA and RCRA regulations to be included in point 14 of the presentation as part of the technical requirements?”

R: “It would depend on how immutable those are and how susceptible they are to change. We are talking about changing a Congressional law, which is as high as it gets.”

C: (Ecology) “Some wastes cannot be separated. Based on that, there is waste that will be vitrified no matter what else is done.”

An Issue Manager team was formed to review the draft advice and prepare for full committee approval to the December Board meeting. Issue Managers include Bob Suyama, Liz Mattson, Jeff Burright, Paige Knight, and Shelley Cimon.

Draft System Plan Assumptions White Paper

Jeff Burright, Lead Issue Manager provided members an overview of the System Plan Assumptions⁴ White Paper. This document was provided for initial Board review at the September Board meeting. Jeff opened the floor for discussion, comments and recommendations for edits. Jeff Burright recommended the following verbiage be added to the response; “The list of assumptions/opinions does not represent Board consensus.” If members were unable to attend the September Board meeting and would like to provide a response to the sounding board question, they will have the opportunity to do so in 100 words or less. If members would like to provide a supplemental response to their sounding board response, they may also do so in 100 words or less.

Jeff Burright, recommended the System Plan Assumptions White Paper move forward to the December Board meeting. By consensus, TWC members approved the document for the December Board meeting.

Open Forum/Committee Business

Bob Suyama introduced the combined agenda item of open forum and committee business. He explained to TWC members that the open forum provides an opportunity for members to discuss topics that may not be on the agenda.

Committee members took the opportunity to walk through the TWC three-month work plan. Updates to the three-month work plan included the following:

- Proposed agenda items for a requested TWC meeting January 9, 2019:
 - WTP Technical Issues Update/Langdon Update

⁴ [Sounding Board Responses](#)

- Successful deployment of primary tank bottom visual inspection system through the refractory air slots of double-shell tank AP-107
- Update on A & AX Construction
- NAS Supplemental Treatment/Debrief
- NRC debrief on Additional Information for C-Farm PA
- 242 Evaporator Update Request

Attachments

Attachment 1: Federal Register Notice on Interpretation of the Definition of High-Level Radioactive Waste.

Attachment 2: Federal Register/Vol 83, No.196/Wednesday, October 10, 2018/Notices

Attachment 3: Framing Questions

Attachment 4: Draft Advice for Comment: DOE Interpretation of non-High-Level Waste (non-HLW)

Attachment 5: Draft System Plan Assumptions White Paper

Attachment 6: Draft Sounding Board Responses

Attendees

Board Members and Alternates:

Susan Leckband, Member	Shelley Cimon, Member	Bob Suyama, Member
Pam Larsen, Member	Emmett Moore, Member	Jeff Burright, Alternate
Richard Bloom, Alternate	Julie Atwood, Alternate	Rebecca Holland, Member
Dan Solitz, Alternate (phone)	Liz Mattson, Member (phone)	Ken Niles, Member (phone)
Kristen McNall, Member (phone)	Vince Panesko, Alternate (phone)	

Others:

James Lynch, DDFO	Kaylin Burnett, DOE-ORP	Jan Bovier, DOE-ORP
Dana Cowley-Gribble, MSA	Richard Valle, DOE-ORP	Tom Rogers, WA DOH
Padraic Fox, DNFSB	Paul Rutland, WRPS	Echo Dahl, Northwind supporting DOE-ORP
Kelsey Shank, The EDGE	Joshua Meyer, WRPS	Fred Ygrancidl, Avoatech
Dan McDonald, Ecology	Suzanne Dahl, Ecology	Mike Turner, (phone)
Carolynn Nunan, (phone)	Annette Cary, Tri-City Herald	Kris Holmes, DOE-RL (phone)
Dieter Bohrmann, Northwind supporting DOE-ORP (phone)	Ginger Wireman, Ecology (phone)	Lindsay Strasser, ProSidian
Leslie Miller, ProSidian		